



WEEKLY OVERSIGHT REPORT

CH2MHILL

Weekly Summary Report**USEPA Oversight, Sauget Area 2, Sauget, IL****WA No. 137-RXBF-05XX / Contract No. 68-W6-0025****Week Ending Friday October 3, 2003**

This report summarizes the Remedial Action (RA) work conducted by Solutia and its contractors from September 28, 2003 through October 3, 2003. The current RA fieldwork consists of barrier wall trenching, construction equipment mobilization, and site preparation.

Contractors Onsite

URS (primary consultant for Solutia)

Inquip Associates Inc. (barrier wall construction contractor)

Pangea Group (construction support services, primary subcontractor to Inquip)

PSI (Professional Service Industries) (geotechnical testing services, subcontractor to Inquip)

Zahner Surveyors (surveyors)

Work Performed This Week**Groundwater Migration Control System**

The Groundwater Migration Control pumping system was readjusted in flow rate on September 29, 2003 to a higher rate as tested during the previous week. The system will run at 1000 gallons per minute (333 gallons per minute per extraction well) for approximately one month while American Bottoms continues to monitor their treatment system's response to the increased flow rate.

Construction Equipment Mobilization

The remaining parts of the second clamshell rig (KS#2) were delivered to the site on September 29, 2003. The Liebherr 853 crane with a hydraulic clamshell was assembled and started work in the trench in the afternoon of September 30, 2003.

Site Preparation

Pangea began to construct the engineered inner berm for the spoil containment area on top of the landfill. This temporary stockpile area will be approximately 450 feet in length and 200 feet wide, and will be used to store the excess spoils from the barrier wall trench. Clean "borrow soil" – a silty clay, was trucked into the site. The berm will be constructed in one-foot lifts, compacted at each lift. The first lift was constructed along the southern horseshoe-shape of the spoils containment area to the south of the access road. Initial compaction was performed on the first lift of the berm.

On October 3, 2003, Pangea continued work to construct the berm but concentrating on completing (to the 4-foot total height) only the southern 125 feet in length and 200 feet wide horseshoe section of the berm. The full length of the sides of the berm will be extended afterwards. The berm was constructed to approximately 1 ½ feet in height by the end of the week.

An initial compaction and moisture test was performed on the berm on October 3, 2003 by PSI using a Troxler 3430 moisture-density gauge. The results indicated that the specification of 90% compaction at dry density was met for the first lift.

The borrow soil used to construct the inner berm for spoils containment was sampled on September 30, 2003 by Pangea. The samples were sent to Severn Trent Laboratories for analysis to verify the soil source was free of contamination.

The exclusion zone was extended in a southerly direction on October 1, 2003 between stations 23+00 and 21+50 to accommodate the spoils generated from trenching. Exclusion zone berms were reinforced or raised in height as necessary throughout the week to maintain spoils securely within the zone.

Stabilization Issue

Construction to build the rock work platform as one part of the resolution for the stability issue began on September 29, 2003. The work platform serves two purposes: (1) raises the ground surface elevation around the trench and (2) provides a stable base upon which the heavy equipment can work. The higher ground surface elevation allows at least an additional two feet of slurry to fill the trench – which exerts an extra 78 pounds per cubic foot of pressure on the walls of the trench. Thus, additional pressure will be provided on the sides of the trench in the area where soil stability was an issue to safeguard against trench collapse.

Geonet, a heavy plastic net material, was laid on the ground surface along the barrier wall alignment. A gap in the geonet of approximately 8 feet was left for the trench itself. Thus, the geonet extends approximately 30 feet on the east side of the trench alignment (for the cranes) and approximately 12 feet on the west side of the trench alignment (for one of the track-feet of the KH1266 hoe). On October 2, after the geonet had been placed between stations 23+00 and 18+50 CH2M HILL were informed of Inquip's intent to switch to another type of material instead of geonet. A brand of geomembrane called Tensar, which is more suited for stabilization, will be used underneath the rock tailings for the remainder of the stabilization area.

Rock tailings, a material of unspecified gradation that is the remnants of rock crushing and contains a mixture of gravel and finer materials including clay, was placed above the geonet. The rock tailings were compacted in every one-foot lift of rock. The compaction was not tested and no standard for the compaction was established.

The work platform was constructed during the week between stations 23+00 and 18+50. However only the section between approximately 23+00 and 21+00 has been compacted to the required elevation. The platform tapers into the previous workpad where the KH1266 was working at the start of the week. By station 21+50, the work platform has raised in elevation to approximately 4 feet.

The second part of the resolution for the stability issue is the installation of wicks. The wicks are scheduled for installation to begin in the coming week. The wicks are porous fabric sections that are designed to provide a relief point for pore pressure increases during the heavy equipment activity in the trench.

Slurry Mixing

Approximately 110 tons of bentonite gel was used to mix 440,000 gallons of slurry this week. The slurry, when pumped from the south holding pond to the trench, was tested

frequently to assess its viscosity and adjusted with a water blending pump as necessary. The viscosity of the slurry was measured by recording the time to filter the slurry into a fixed volume container. All the viscosity values obtained during the week were satisfactory.

Barrier Wall Construction

Inquip has opened the trench to approximately 400 feet in length along the barrier wall alignment, from station 27+50 toward station 23+40 (please refer to Solutia's map for locations). The KH1266 trackhoe was used to excavate the trench up to 95 feet in depth.

The first clamshell rig (Liebherr 843 crane) operated in the trench for approximately 2 ½ days (September 28 through 30) during the 6-day workweek (Sunday through Friday). Solentanche and Liebherr mechanics worked to address issues with hydraulic fluid pumps to increase the closing pressure of the clam while excavating. However, an electrical problem with the crane followed was not solved at the end of the week.

The second clamshell rig (Liebherr 853 crane) operated in the trench from September 30 to October 2, 2003, approximately 2 ½ days during the week. The crane was assembled prior to September 30. The crane broke a pulley on the head of the boom on October 2, 2003 while attempting to lift a large boulder from the trench. The head of the boom was detached from the crane on October 3 with the intention to replace it with the head from the Liebherr 843 crane that was currently out of operation.

Bentonite slurry was pumped into the trench as needed to keep the excavation open. The depth to slurry in the trench was consistently maintained at less than two feet below ground surface. The slurry in the trench, together with the slurry from the south holding pond, were tested two to three times a day for the following parameters: viscosity, density, filtrate loss, pH, and sand content. The test results were satisfactory and met the minimum requirements specified for the barrier wall construction.

Trench depths were measured every 20 linear feet of trench excavated. Trench depths were also measured at the end of the day and at the beginning of the next day to evaluate if any cave-ins or slurry settling had occurred overnight. The final depths of the barrier wall trench at the end of the week are shown in Table 1. Construction progress by October 3, 2003 is depicted below.

Graph 1 shows the progress of the trench excavation during the week in comparison to the previous week. Graph 2 shows the overall progress of the barrier wall construction.

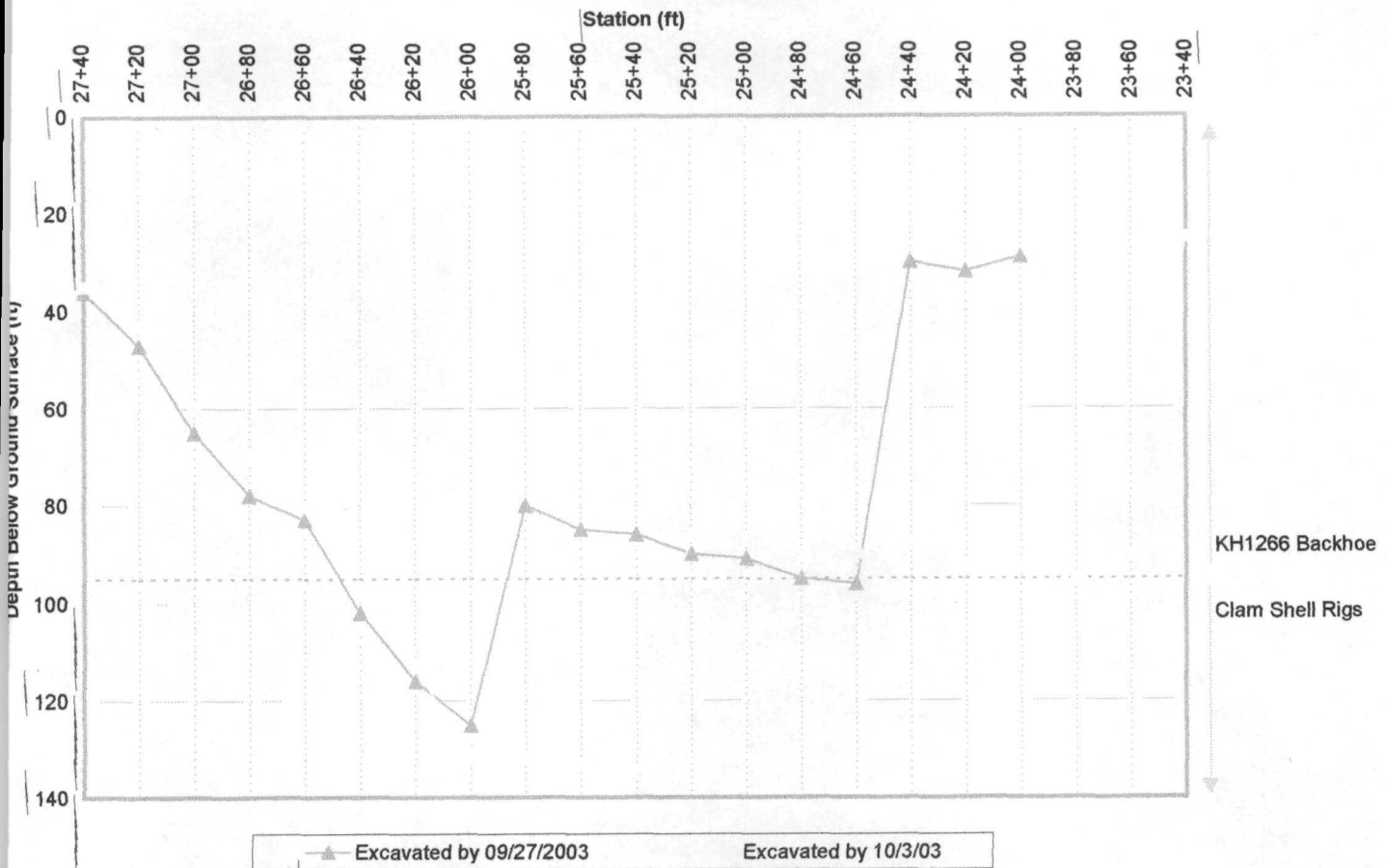
Table 1 – Depths-to-bottom Measurements for the Barrier Wall Trench (end of day October 3, 2003)

Station ID	Depth to bottom (ft below ground surface)
27+40	35
27+20	43
27+00	60
26+80	70
26+60	80
26+40	98
26+20	113
26+00	132
25+80	132
25+60	133
25+40	135
25+20	86
25+00	87
24+80	90
24+60	90
24+40	88
24+20	93
24+00	92
23+80	95
23+60	90
23+40	25

Construction Progress

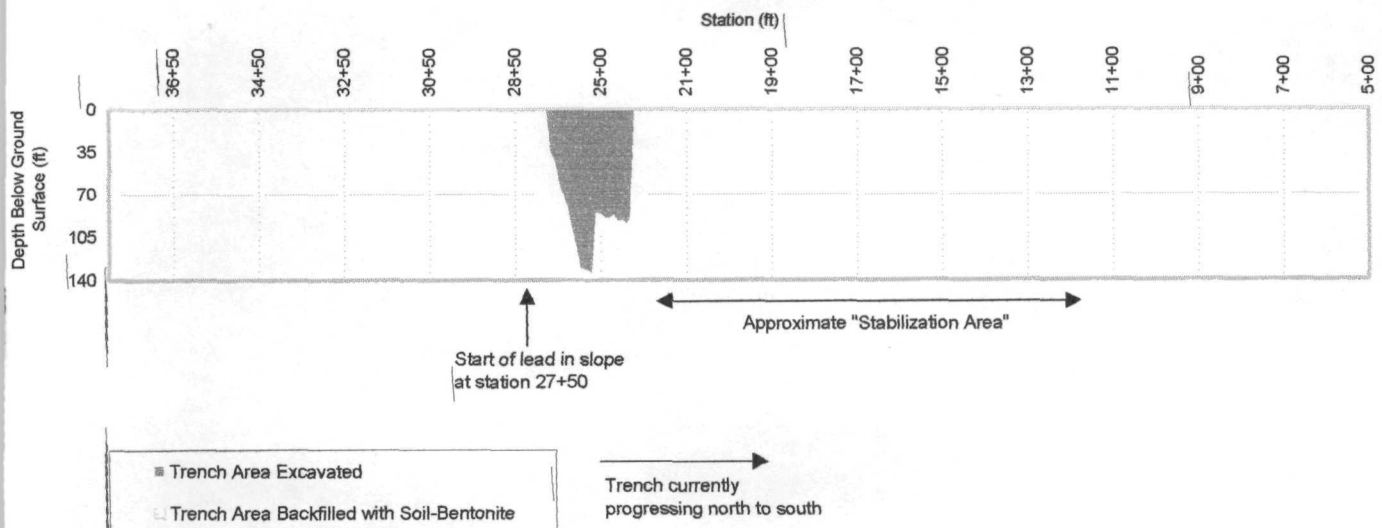
Graph 1

Weekly Barrier Wall Construction Progress
Sept. 28th to Oct. 3rd 2003



Graph 2

Barrier Wall Construction Progress by October 3, 2003



Photos from week - September 28 through October 3, 2003:



KH1266 and both clamshell rigs in the exclusion zone (October 1, 2003).



PSI performed initial tests on the berm for spoils containment (October 3, 2003)